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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,125	01/12/2005	Lu Tian	139369USPCT	6511

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EXAMINER	
AJIBADE AKONAI, OLUMIDE	
ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/521,125	TIAN ET AL.	
	Examiner	Art Unit	
	OLUMIDE T. AJIBADE AKONAI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *28-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *28-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jain et al 6,987,751 (hereinafter Jain)** in view of **Uchida et al 7,072,359 (hereinafter Uchida)**.

Regarding **claim 28**, Jain discloses a system for enabling communications between a mobile unit and a network over an air interface, wherein the network and interface are based on first and second incompatible protocols, respectively, and wherein the mobile unit is compatible with both protocols, the system comprising: a call controller inherited directly from the network and adapted for using the first protocol (hybrid MSC 24 invokes a GSM protocol to connect the MS 18, indicating presence of a call controller since the function of the call controller is to support call establishment and call clearing procedures, see figs. 1 and 2, col. 4, lines 35-56); a mobility manager inherited directly from the network and adapted for using the first protocol and accessible to the call controller (hybrid MSC invokes a GSM protocol to authenticate MS 18, indicating the presence of a mobility manager since the mobility manager is responsible for supporting authentication procedures in for GSM, see fig. 2, col. 4, lines 52-62); at least a portion of a base station inherited directly from the interface and adapted for using the second protocol (hybrid MSC 24 communicates with the CDMA RAN 12, therefore indicating that it uses the base station system application part to communicate with CDMA RAN 12, see col. 3, lines 40-44, col. 4, lines 35-41).

Jain does not disclose a message converter accessible to the call controller and the base station portion, wherein the message converter is adapted to convert information compatible with the first or second protocol into information

compatible with the other protocol; and said message converter including a plurality of instructions, said instructions including: an instruction for receiving a first message based on the first protocol from the network; an instruction for inserting the first message in its entirety into a single variable length field of a second message compatible the second protocol; an instruction for receiving a third message based on the second protocol from the interface; and an instruction for extracting a fourth message compatible with the first protocol from a single variable length field of the third message.

In an analogous art, Uchida discloses a communication network 100 that includes a CDMA network 110 and a GSM network 120 (see fig. 1, col. 3, lines 31-34), comprising a message converter accessible to the call controller and the base station portion (IIF, see fig. 1, col. 6, lines 43-62), wherein the message converter is adapted to convert information compatible with the first or second protocol into information compatible with the other protocol (conversion of GSM SMS to a CDMA message, see fig. 3, col. 7, lines 42-59); and said message converter including a plurality of instructions, said instructions including: an instruction for receiving a first message based on the first protocol from the network (see fig. 4, col. 8, lines 45-65); an instruction for inserting the first message in its entirety into a single variable length field of a second message (inserting the data field of the GSM SMS message into the user data field of the CDMA SMS message, the user data field having a variable length, see table 3, col. 7, lines 58-62) compatible the second protocol (conversion of GSM SMS to a CDMA message, see fig. 3, col. 7, lines 42-59); an instruction for receiving a third

message based on the second protocol from the interface (see col. 7, lines 60-67); and an instruction for extracting a fourth message compatible with the first protocol from a single variable length field (inserting the data field of the CDMA SMS message into the user data field of the GSM SMS message, the user data field having a variable length, see table 1, col. 4, lines 51-65, col. 7, lines 60-67 and col. 8, lines 8-9) of the third message (conversion of CDMA SMS to a GSM message, see col. 8, lines 1-9).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Uchida, by encapsulating GSM information in a CDMA message, into the system of Jain for the benefit of transmitting GSM SMS messages to mobile users in a CDMA network.

Regarding **claim 31**, Jain discloses a system for enabling communications between a mobile unit and a network over an air interface, wherein the network and interface are based on first and second incompatible protocols, respectively, and wherein the mobile unit is compatible with both protocols, the system comprising: a call controller inherited directly from the network and adapted for using the first protocol (hybrid MSC 24 invokes a GSM protocol to connect the MS 18, indicating presence of a call controller since the function of the call controller is to support call establishment and call clearing procedures, see figs. 1 and 2, col. 4, lines 35-56); a mobility manager inherited directly from the network and adapted for using the first protocol and accessible to the call controller (hybrid MSC invokes a GSM protocol to authenticate MS 18, indicating the presence of a mobility manager since the mobility manager is responsible for supporting authentication procedures in for GSM, see fig. 2, col. 4, lines

52-62); at least a portion of a base station inherited directly from the interface and adapted for using the second protocol (hybrid MSC 24 communicates with the CDMA RAN 12, therefore indicating that it uses the base station system application part to communicate with CDMA RAN 12, see col. 3, lines 40-44, col. 4, lines 35-41).

Jain does not specifically disclose a message converter accessible to the call controller and the base station portion, wherein the message converter is adapted to convert information compatible with the first or second protocol into information compatible with the other protocol; and said message converter including a plurality of instructions, said instructions including: an instruction for receiving a first message based on the first protocol from the network; an instruction for inserting the first message in its entirety into a single variable length field of a second message compatible the second protocol; an instruction for receiving a third message based on the second protocol from the interface; an instruction for extracting a fourth message compatible with the first protocol from the a single variable field of the third message; and an instruction for converting the third message into a fifth message compatible with the first protocol if the third message does not contain the fourth message.

In an analogous art, Uchida discloses a communication network 100 that includes a CDMA network 110 and a GSM network 120 (see fig. 1, col. 3, lines 31-34), comprising a message converter accessible to the call controller and the base station portion (IIF, see fig. 1, col. 6, lines 43-62), wherein the message converter is adapted to convert information compatible with the first or second protocol into information compatible with the other protocol (conversion of GSM SMS to a CDMA message and

vise versa, see fig. 3, col. 7, lines 42-59); and said message converter including a plurality of instructions, said instructions including: an instruction for receiving a first message based on the first protocol from the network (see fig. 4, col. 8, lines 45-65); an instruction for inserting the first message in its entirety into a single variable length field of a second message (inserting the data field of the GSM SMS message into the user data field of the CDMA SMS message, the user data field having a variable length, see table 3, col. 7, lines 58-62) compatible the second protocol (conversion of GSM SMS to a CDMA message, see fig. 3, col. 7, lines 42-59); an instruction for receiving a third message based on the second protocol from the interface (see col. 7, lines 60-67); an instruction for extracting a fourth message compatible with the first protocol from a single variable length field (inserting the data field of the CDMA SMS message into the user data field of the GSM SMS message, the user data field having a variable length, see table 1, col. 4, lines 51-65, col. 7, lines 60-67 and col. 8, lines 8-9) of the third message (conversion of CDMA SMS to a GSM message, see col. 8, lines 1-1-9); and an instruction for converting the third message into a fifth message compatible with the first protocol if the third message does not contain the fourth message (conversion of CDMA SMS to a GSM message, see col. 8, lines 1-9).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Uchida, by encapsulating GSM information in a CDMA message, into the system of Jain for the benefit of transmitting GSM SMS messages to mobile users in a CDMA network.

Regarding **claims 29 and 32** as applied to claims 28 and 31, Jain as modified by Uchida discloses the claimed limitation. Uchida further discloses wherein the first protocol is a Global System for Mobile Communications (GSM) protocol and wherein the second protocol is a code division multiple access (CDMA) protocol (see col. 7, lines 43-59).

Regarding **claims 30 and 33** as applied to claims 28 and 31, Jain as modified by Uchida discloses the claimed limitation. Uchida further discloses wherein the second protocol is a Global System for Mobile Communications (GSM) protocol and wherein the first protocol is a code division multiple access (CDMA) protocol (see col. 7, lines 60-67, col. 8, lines 1-9).

Response to Arguments

3. Applicant's arguments filed March 3, 2009 have been fully considered but they are not persuasive. Regarding claims 28 and 31, the applicants' representative asserts that neither Jain nor Uchida suggest the recited structure or functionality of the amended claims. Uchida clearly reads on the applicants' underlined amendments, "inserting the first message in its entirety into a single variable length field of a second message"... and "extracting a fourth message compatible with the first protocol from a single variable length field of the third message". Uchida clearly discloses during GSM-to-CDMA message conversion, inserting the data field of the GSM SMS message into the user data field of the CDMA SMS message, the user data field having a variable length (see table 3, col. 7, lines 58-62), and for CDMA-to-GSM message conversion, inserting the data field of the CDMA SMS message into the user data field of the GSM

SMS message, the user data field having a variable length (see table 1, col. 4, lines 51-65, col. 7, lines 60-67 and col. 8, lines 8-9). Uchida therefore reads on the newly added limitations to claims 28 and 31. Jain broadly reads on the applicants' claimed limitation of a system for enabling communications between a mobile unit and a network over an air interface (see fig. 1), the system comprising a call controller and a mobility manager as recited in claims 28 and 31 (see reasons/explanation indicated in 103(a) rejection of claims 28 and 31 above). Uchida disclose a message converter functionality to convert messages from a GSM protocol to CDMA protocol and vice versa (see col. 7, lines 42-67, and col. 8, lines 1-9). Jain, as modified by Uchida, therefore reads on the applicants' claimed limitation. Claims 28-33 stand rejected.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T. AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617